# METHOD AND APPARATUS FOR PROVIDING NETWORK VPN SERVICES ON DEMAND

## ABSTRACT

A S-VPN gateway provides a signaling gateway to integrate SIP signaling and UNI/NNI signaling, and manage the mapping between SIP sessions and VPN connections. The mapping relationship reflects the access of user applications to the specific VPN tunnels, multiplexing of media service sessions to VPN tunnels, VPN service creation, service duration, VPN QoS, VPN service life cycle management, and VPN service charge based on a per-service-usage. The S-VPN gateway also provides VPN access policy/security management (i.e., inter-domain AAA process), VPN membership auto-discovery, service auto-discovery, network resource auto-discovery, address resolution service for both SIP and VPN naming space, VPN service mobility, and SLA management. The S-VPN gateway enables network VPN tunnels to be created in advanced and accessed on-demand, for example by enterprise VPN applications such as GRID applications, through a SIP interface.